Massachusetts Priority Needs
Past (FY10) and Current (FY11) Activities, and Plans for FY12

Massachusetts established its current Priority Needs as a result of the Five-Year Needs Assessment in 2010. The activities described in this document should address those Massachusetts Priority Needs. They are in addition to activities listed under National or State Performance Measures. Many of the state's activities address both a Priority Need and a National or State Performance Measure. Generally, activities reported in the Block Grant Annual Report under the relevant performance measure narratives NOT repeated here or only supplemental details are provided. Instead, cross-references to measures are provided for each priority.

"Current Activities (FY11)" and "Planned for the Coming Year (FY12)" sections focus primarily on new activities for FY11 or FY12 versus activities continuing from earlier years.

Priority Need # 1: **Promote healthy weight**

See also accomplishments and activities related to this priority described under National Performance Measure #14 and State Performance Measure #06.

Additional Past Accomplishments (FY10):

The Essential School Health Service Performance Improvement (evaluation/CQI) Committee, comprised of 25 nurse leaders that meet monthly, had several relevant FY10 studies: 1) a performance improvement project that includes parent education on the triggers of asthma to determine if health office visits decrease; and 2) a performance improvement project on diabetes care in the schools, including a review of standards and data collection on the amount of time needed to manage a child newly diagnosed with Type 1 diabetes. The asthma study is ongoing and the diabetes study found that a newly diagnosed student with diabetes requires 90 minutes of school nursing time per day (for the first three months) to manage the child's condition: insulin administration, blood glucose monitoring, carbohydrate counting, parent/student teaching, and collaboration with physicians. An unanticipated finding was that students in middle and high economic communities, with the same providers, were placed on insulin pumps (the standard of care) whereas there were almost no pumps in low economic communities.

The School Health Unit has continued to collaborate with the Bureau of Environmental Health to do a survey on diabetes (Type 1 and 2) and asthma in every school building, both public and private, in the Commonwealth.

The Northeastern University School Health Institute has also developed online programs (https://www.neushi.org/) on BMI. The School Health Unit completed regulations in FY09 that require BMIs in grades 1-4-7-10, effective for all schools in FY11. In FY10, the Essential School Health Service Programs completed 163,000 BMIs, and found that approximately one-third of the students are overweight or obese. A report by community is planned for FY11. The School Health Institute trained 1,621 school nurses in proper technique.

Additional Current Activities (FY11):

Essential School Health Services:
Based on the finding of the CQI committee regarding diabetes, the Massachusetts Legislature allocated $200,000 in the fall supplemental budget to reduce the disparities in care. The SHU developed three pilot projects where students are managed jointly by the school nurses and endocrinologists:

- Springfield Public Schools: Baystate Medical Center
- Lawrence/Billerica/Lowell Public Schools: Children's Hospital
- Fitchburg/Leominster Public Schools: UMASS Medical Center.

Each pilot is required to (a) identify 20 students, mutually managed, who have had difficulty with diabetes management, (b) ensure that a member of the endocrinology team is placed in the schools a minimum of one day per week, (c) complete extensive data collection, (d) conduct joint home visits, (e) provide educational sessions for parents and students, and (f) provide educational sessions for school nurses. The SHU staff have conducted focus groups of the endocrinologists and all are extremely enthusiastic about reaching these students in a positive way and collaborating closely with the school nurses. A final report will be completed; based on the FY12 budget we would like to continue this project next year.

In FY11, all students in MA public schools are required to have BMIs done in grades 1-4-7-10. The data are coming in and we plan to issue a report by community in the fall of 2011.

The SHU, collaborating with the legal office, drafted regulations for School Wellness Advisory Committees. The regulations require (a) a range of school and community representatives, (b) annual review of the wellness policy and its implementation, (c) quarterly meetings, (d) annual goals and a report on how those goals were meet, and (e) a recommendation that wellness be included in the district's core values.

Additional Activities Planned for the Coming Year (FY12):

Essential School Health Services:
Attempt to glean money from the FY12 budget to continue the diabetes pilots for another year so that measurable results can be demonstrated. In addition, CHMC is interested in applying for a grant with the Boston Public Schools to implement the project there.

Complete a report by community on the BMIs data.

Assist in implementing the school wellness committee regulations.

Complete and distribute the manual on the care of the child with diabetes in the school setting.

Priority Need #2: Promote emotional wellness and social connectedness across the lifespan

See also accomplishments and activities related to this priority described under National Performance Measure #16 and State Performance Measure #02.

Additional Past Accomplishments (FY10):
In recent years, the Massachusetts Legislature has passed three major mental health bills of great importance for children and families. The 2008 Omnibus Children's Mental Health Act requires pediatricians to routinely screen children for behavioral health problems, with parental consent, and for health insurance companies to cover those screenings. Also enacted in 2008, the Mental Health Parity law mandates that insurers and government programs cover mental health in the same capacity that they

cover physical health. This bill groups all mental illness together and includes post-traumatic stress disorder (specifically mentioning rape), eating disorders, and substance abuse. Additionally, the bill expands mental health coverage for children. Ch. 313 of the Acts of 2010, an Act Relative to Postpartum Depression, requires the Department of Public Health to create regulations to address postpartum depression (PPD) including the use of screening tools, standards for PPD data reporting, and the development of both professional and public education programs. The law also created a commission dedicated to developing policies to prevent, detect and treat PPD as well as requires health insurers to file annual reports detailing their efforts to screen new mothers for depression.

The Bureau Director continues to serve as the Commissioner's Representative on the EOHHS Children's Behavioral Health Initiative (CBHI) Executive Committee and as a member of the CBHI Implementation Coordinating team. The CBHI is an interagency initiative whose mission is to strengthen, expand and integrate Massachusetts services into a comprehensive system of community-based, culturally competent behavioral health and complementary services for children with serious emotional disturbance and other emotional and behavioral health needs, along with their families. A key objective of CBHI is to: develop and implement integrated policies regarding early identification, access to behavioral health, assessment of behavioral health needs, service delivery and measurement of outcomes.

The Massachusetts Early Childhood Comprehensive Systems (MECCS) Director continues to attend meetings of the Massachusetts Chapter of the American Academy of Pediatrics Children's Mental Health Task Force. Through her participation on the task force, the MECCS Director is able to receive updates on CBHI implementation and current work being done around the state on early childhood mental health, as well as share ideas around maternal depression screening and professional development.

As CBHI continues to roll out, MECCS will work to support its efforts while also trying to enhance its provisions through more comprehensive, family-focused initiatives. Some of these initiatives include: support training/technical assistance on maternal depression screening; and develop a roadmap for parents regarding the referral process for behavioral health screens.

LAUNCH

In FY09, the Department of Public Health, MECCS, the Boston Public Health Commission and Thrive in 5 collaborated on a successful proposal for a federal SAMHSA grant to pilot an early childhood medical home model. The grant provides $850,000/year for 5 years to leverage lessons learned from three demonstration sites to inform state policy and cost-sharing strategies regarding children at risk for or experiencing early childhood mental health (ECMH) issues. The Massachusetts proposal, "Mass LAUNCH," featured several key elements including: early identification and linkage to effective services and supports of children showing warning signs of SED and/or exposed to "toxic stress"; culturally and linguistically competent support and linkage of children and families to accessible, affordable, coordinated services; expansion of service capacity to provide community based mental health clinical and consultation services in children's natural environments; cross-training of early childhood and family support workforces to recognize and respond to infant and early childhood mental health (IECMH) issues using evidence-based, developmentally-appropriate, relationship-based tools and practices; and evaluation of outcomes for continuous improvement, and identification of the return on investment of early intervention and treatment. First year start up and hiring resulted in few children and families receiving services in year one (FY10) of the grant, but the project is on track to meet the estimated number of children and families to be served in year two, with 500 served through enhanced screening, approximately 392 receiving referrals and 266 receiving evidence-based treatment services.

In FY10, LAUNCH hired a State Coordinator, who sits in DPH's Bureau of Family Health and Nutrition. A local level LAUNCH Program Manager at the Boston Public Health Commission was also hired. Each LAUNCH primary care site has become fully operational and standardized service delivery guidelines have been developed. Six full-time LAUNCH staff (an early childhood mental health clinician and a family partner for each primary care site) were hired and trained. Primary care physicians are actively referring children with social emotional needs to LAUNCH family partners or clinicians and LAUNCH staff are providing services or referring families to community-based services. Every child and family served by

LAUNCH has the option to receive program services at home or in another natural environment identified by the family. Every participating family who has consented to a home visit has received one. LAUNCH home visiting services are based upon several evidence-based models including the Nurturing Program, the Center on the Social and Emotional Foundations for Early Learning (CSEFEL) Pyramid Model and the Strengthening Families Approach to Protective Factors. LAUNCH staff have begun to provide mental consultation at sites where children served by LAUNCH receive care, including childcare and school settings.

In FY10 LAUNCH also held the first Learning Collaborative session to further the Medical Home Quality Improvement process. LAUNCH has also successfully partnered with MYCHILD and the State Department of Early Education and Care (EEC) to support the statewide rollout of the CSEFEL Pyramid Model, which includes training of trainers, coaches and demonstrations sites.

MYCHILD:
In FY09, EOHHS, the Boston Public Health Commission, MECCS, United Way and the Thrive in 5 project collaborated on a successful proposal for a federal SAMSHA grant to pilot an early childhood system of care. It will provide up to $9M over 6 years and requires state match of $8M. MYCHILD focuses on intervention for young children B-5 with or at imminent risk for serious emotional disturbance. The Massachusetts proposal, MYCHILD (Massachusetts Young Children's Health Interventions for Learning and Development), featured several key elements including: promoting standardized behavioral health and maternal depression screening in a medical home; increasing access to IECMH consultant/clinicians in child care and family residential programs; training clinicians and front line providers in evidence-based practice, including the Center for the Social Emotional Foundations of Early Learning (CSEFEL) Positive Behavior Support approach; and partnering with United Way and DPH on social marketing campaign on IECMH. MYCHILD expects to serve approximately 830 young children with or at risk for SED over the project period. MYCHILD has begun to serve children and families with a current caseload of 32 and estimates it will serve 100 children in year 2.

In FY10, the MYCHILD model was fully implemented in each of the pilot sites and standardized service delivery guidelines were developed. MYCHILD works with children who have or are at imminent risk of a serious emotional disturbance (SED). The grant management team worked closely with the state's Young Children's Council and other community advisors to develop standardized protocols for identifying children at risk of SED as well as linking children with or at risk of SED with MYCHILD services, including a plan for guiding the child and family from the point of referral to transition. The protocols developed include use of the Child and Adolescent Needs and Strengths (CANS) tool to determine program eligibility, which will help promote alignment of MYCHILD with CBHI and sustainability of the MYCHILD model.

In FY10, MYCHILD key administrative staff, including the Program Manager and Lead Family Partner, were hired. Also, primary care physicians have begun to refer children with social emotional needs to the MYCHILD team who are providing services or referring families to mental health services in the community, such as in-home family therapy. The MYCHILD management team has provided each site with materials on promoting healthy social and emotional development in children and continues to work with site primary care clinicians on practice change initiatives to improve quality of care. Additionally, each family served by MYCHILD has the option to receive program services in the home or other natural service environment. Home visiting services are based on several evidence-based models including the Nurturing Program, the Center on the Social and Emotional Foundations for Early Learning (CSEFEL) Pyramid Model and the Strengthening Families Approach to Protective Factors.

MYCHILD staff recently offered technical assistance to a training of non-English speaking parents at the Federation for Children with Special Health Care Needs annual conference. As the state's largest meeting of families of children with special health care needs, the conference provided an opportunity to reach over 700 parents.

<u>LAUNCH/MYCHILD</u>:

LAUNCH and MYCHILD have supported trainings and technical assistance for the statewide roll-out of the CSEFEL Pyramid Model. The MECCS Director and the LAUNCH State Coordinator facilitate the Pyramid Model State Leadership Team, which since receipt of a technical assistance grant from CSEFEL in 2009, has planned and overseen implementation of the statewide Pyramid Model efforts – including training of trainers, coaches and demonstrations sites. As a significant part of this roll-out, in FY10, the Department of Early Education and Care (EEC) awarded $300,000 in ARRA funds to the Connected Beginnings Training Institute to deliver a statewide, introductory CSEFEL training to close to 2000 early educators. Recently, the Director of LAUNCH conducted a MYCHILD and LAUNCH specific CSEFEL training to site staff.

LAUNCH/MYCHILD partnered with EEC, Head Start State Collaboration Office, and a number of other state and local partners to plan for Children's Mental Health Awareness Day on May 3, 2011. Awareness day activities included a state e-mail campaign on early childhood trauma and resources and strategies and Boston community events in partnership with several local YMCA's. The E-blast included linkages to key state and national resources on early childhood trauma.

Through the Young Children's Council and other partnerships, LAUNCH and MYCHILD have generated significant visibility with the state's Children's Behavioral Health Initiative (CBHI). Within the past year, CBHI has increased its emphasis on ECMH in CBHI and its Executive Committee has highlighted this topic as a priority issue.

LAUNCH and MYCHILD efforts have also contributed to a stronger focus on pediatrics in the development of other Medical Home initiatives in Massachusetts. A variety of state health policy groups including the state chapter of the AAP's Children's Mental Health Task Force, the Department of Mental Health's Professional Advisory Council, and the Children's Behavioral Health Council's Systems Workgroup have identified behavioral health as an important component of the pediatric medical home.

In FY10, the MDPH completed and evaluated a federally funded project called the Massachusetts New Parent Initiative (MNPI). MNPI goals included: 1) developing emotion-based message campaign for new parents, with social marketing company, entitled Care, Share, Bond; 2) developing new parent tote bag which contains a new parent brochure of tips, a calming CD, a swaddle blanket with instructions, a guide of questions to ask your provider, and two teabags to encourage parent relaxation. Other project activities included 3) developing digital stories in English and Spanish with 10 parents; 4) developing a training DVD for providers; 5) developing a provider toolkit to help providers use the emotion-based messages with their patients to encourage dialogue and relationship building; 5) working with social marketing company to develop a PSA; and 6) completing an evaluation which was designed and implemented by Boston University School of Public Health. The evaluation, conducted both at community health centers, and with home-visiting programs, assessed whether the MNPI parent bag facilitated communication between providers and new parents, and whether providers indicated they would use the additional materials in the toolkit to improve their communication with new parents on a variety of topics including mental wellness, domestic violence, family planning and early nurturing and soothing infants. The evaluation found that the MNPI bag had the greatest impact in the community health center by triggering discussion that providers did not previously have with new parents. However, the level of communication between home visitors and new parents was already so high that parents did not report a significant improvement with how well they felt their home visitor communicated with them about a variety of topics. Both home visitors and the new parents they visited highly valued the MNPI bags though, and felt that the materials supported the education that the home visitors provided.

Based on this response to MNPI bags, DPH staff continued to train a wide range of providers including pediatricians, home visitors, community health workers, ob/gyns, nurses and other staff at community health centers and within home visiting programs in the use of the MNPI bag and other items in the provider tool kit. Once trained, providers were then able to order additional materials to use with the new parents they with whom they work.

Early Intervention programs provide a range of services to young children, including addressing mental health and emotional well-being. Specific emphasis within all early intervention services focuses on parent/child attachment. Additionally, all Early Intervention providers offer assistance to parents and

family members of enrolled children who may be seeking or are in need of mental health services. In FY 09, 99.4% (6,391) of the children in the Massachusetts EI System (excluding those eligible due to at risk only) were either age appropriate or improved functioning in the area of social/emotional skills at the time of exiting early intervention services.

In addition, 97.8% (6,219) of children in EI with a developmental delay (regardless of type of delay) demonstrated improved functioning in the acquisition and use of knowledge and skills (communication domain) and 98.9% (6,283) demonstrated improved functioning in the use of appropriate behaviors to meet their needs (adaptive/self help domain).

Nurses in the ESHS districts made 12,054 referrals for mental/behavioral health services (up form 9,727 the previous year. Nurses reported that psychotropic medications continue to be the most common medications taken by students on a scheduled basis at a rate of 5.3 prescriptions per 1,000 enrolled students in spite of a decrease since 2001 in administration of these medications at school, possibly due to at-home administration of newer one-dose slow-release psychostimulants. Asthma medications are the most common on an as-needed basis.

EIPP continued to provide a focus on maternal mental health during home visits to high need prenatal and parenting families in eight Massachusetts communities. Several EIPPs continued with support groups for women in their program to decrease social isolation, and including Nurturing Groups to improve bonding and attachment to support maternal and infant emotional health.

Additional Current Activities (FY11):
LAUNCH: LAUNCH is fully staffed at the state and local levels and local implementation is fully functional. The Medical Home Learning Collaborative began in November 2010 and will continue through January 2012, resulting in action planning to support practice change in the demonstration sites and a toolkit for other sites to replicate the work.

MYCHILD: The MYCHILD grant is currently in its first year of implementation. EOHHS and the MECCS director have worked to align both the governance and implementation of this grant with the state's other SAMHSA grant, MassLAUNCH. EOHHS and its partners Abt Associates have develop an evaluation plan for MYCHILD and implementation protocols and professional development strategies. MYCHILD is staffed at the state level and at 3 of the 4 local sites. One site dropped out of the project, so a new site has been selected and is in the process of hiring staff. Mental health clinician and family partner teams at both sites are implementing enhanced identification protocols and also working to educate and support parents in accessing necessary services and other resources.

In FY11, ongoing Maternal and Infant Mental Health (MIMH) activities have included:, 1) continued dissemination of awareness campaign materials which provide information to women regarding signs and symptoms of maternal depression, 2) continued support of the 24-hour Parental Stress hotline which is available in 7 languages, 3) on-going technical assistance and information to Massachusetts providers on resources and approaches to provide appropriate care for women experiencing depression, and 4) continued support of the *House Bill 3897 An Act Relative to PostPartum Depression* which was passed in August 2010.

EIPP offers screening, brief intervention, support groups and refer/linkage to long-term care for depression and issues were pregnant and postpartum women. Lessons from MIMH groups have been replicated in EIPP, helping to stabilize EIPP funding and activities. Some EIPP have continued support groups to decrease social isolation.

The SBHC program, in collaboration with the Department of Children and Families, has developed behavioral health protocols as a first step in implementing the Integrated Casework Practice Model (as a part of the Children's Behavioral Health Initiative). SBHC clinicians were trained on the model and were required to host their community service agencies to receive in-depth training on the various service

components. They received specific instruction on the rudiments of assessment for students with SED (including the CANS).

In collaboration with the Massachusetts General Hospital Institute of Health Professions, the SBHC program has sponsored extensive training on core "mental health" competencies for PNPs in SBHCs. Training has included a review of the most common mental/behavioral health problems by age group, differential diagnoses for the most common conditions including depression, anxiety, adjustment disorder, oppositional defiant disorder, obsessive compulsive disorder and schizophrenia. Psychiatric referral information was provided and clinicians received specific instruction on communicating with team members including CBHI 'community service agencies' and how to communicate with psychiatrists (i.e. "what the psychiatrist needs to know"). Additionally, they received instruction in basic psychopharmacology including appropriate dosing information and significant side-effects associated with most commonly prescribed medications. A case study format was used to provide instruction on using a resource guide developed by MGH-IHP.

Care Coordination, FOR Families, and EIPP screen for depression and other mental and behavioral health concerns. When needed, referrals are made to appropriate mental health services for further assessment, diagnosis and treatment. Home visitors provide women and children with information, education, and support regarding mental health issues and approaches and techniques that can promote positive mental health, including self-esteem and self-confidence, stress and anger management, and building social support systems.

The Community Resource Line fields calls regarding mental health resources for families and providers and provides referrals to agencies, treatment, and support services.

The Early Intervention Training Center (EITC) has updated curricula to reflect social emotional development and relationship based practice in the current EI Orientation Training and has provided Special Sessions on the Early Childhood Mental Health Screening Tools, the ASQ-SE and Greenspan. The EITC is utilizing the Center on Social Emotional Foundations for Early Learning (CSEFEL) materials/strategies in many of the training center offerings. In addition, the EITC has made additional resources available to support programs in the implementation of universal social emotional screening.

The Massachusetts SIDS Center provides culturally competent bereavement services statewide for families and significant others who have lost infants from SIDS, fetal demise, stillbirth, or other causes, as well as training for first responders and hospital personnel and the development and dissemination of materials. Family-focused bereavement services contribute to family preservation, prevention of child abuse and ATOD, and long-term mental health. The Center improves cultural competency among health care providers and service systems by addressing cross cultural grief responses and the development of appropriate interventions. The SIDS Center improves consistency of resources and access to services across the state by creating community-based capacity for delivering linguistically and culturally-appropriate counseling services.

In planning for the Maternal, Infant and Early Childhood Home Visiting programs funded through the Affordable Care Act (ACA), Massachusetts agreed to prioritize training on screening and response for mental health, unhealthy substance use, and family violence into each of the funded programs to enhance the current evidence-based home visiting models ability to respond to the mental health needs of families.

Additional Activities Planned for the Coming Year (FY12):

LAUNCH has developed plans to enhance direct services in each pilot site including: 1) Home visiting; 2) Mental health consultation; 3) Family Strengthening; 4) Developmental Assessments and; 5) Integration in Primary Care.

- Home Visiting: In FY 12, the LAUNCH team will develop a protocol for a referral system between LAUNCH and the home visiting program, Healthy Baby, Health Child, located in the three

LAUNCH sites. LAUNCH will also participate in a city-wide effort called “Circle of Promise” which seeks to design and develop a standard of practice for all home visiting programs. Additionally, at the state level, the LAUNCH Director will continue to participate in the Federal Home Visiting Work Group.

- Mental Health Consultation: In FY 12, LAUNCH will strengthen outreach efforts targeting early care and education programs. Specifically, LAUNCH will work with the Thrive in 5 Ready Educators group to learn about their concerns regarding children demonstrating social and emotional problems. At the state level, LAUNCH will partner with the Departments of Early Education and Care, Mental Health, and the Children’s Behavioral Health Initiative to review how Mental Health Consultation fits within a system of services to assure young children receive needed behavioral health services. LAUNCH will also develop a data tracking system to ensure mental health consultation services conducted by LAUNCH staff are collected and recorded.

- Family Strengthening: In FY 12, LAUNCH will continue to train site staff in the Family Nurturing Program. Staff will begin using Nurturing Program materials in home visits and be prepared to run Nurturing Program Groups. LAUNCH staff will also be trained to implement the CSEFEL Family Module as part of the family strengthening work. At the state level, the LAUNCH PI will sit on the core team for two new state TA grants: Strengthening Families AIM and Help Me Grow replication. LAUNCH will also develop a data tracking system to capture the family strengthening work done in groups and with individual families.

- Developmental Assessments: In FY12, the LAUNCH will move to supporting the site staff in specific guidelines around providing screens and assessments to children and families and collecting data to monitor progress.

- Integration in Primary Care: In FY 12, LAUNCH will focus on supporting site staff in how to best include primary care providers in the LAUNC model and collecting data to monitor progress. The Medical Home Learning Collaborative will continue to meet to address issues such as quality assurance and sustainability, including billing practices. At the state level, LAUNCH and MYCHILD will continue to partner with other policy leaders and advisory groups (AAP Children’s Mental Health Task Force, Children’s Behavioral Health Systems Committee, and DMH Professional Advisory Council) to raise visibility of these issues.

LAUNCH has also planned a variety of systems building activities for FY12. LAUNCH is developing an online means of communication to use across sites to share resources and lessons learned. Second, LAUNCH is in the process of restructuring its Local Council to make it a more effective advisory group, with family participation, and a stronger force for city-wide systems development. Work is continuing with the state’s Child Wellness Council on the strategic plan, including goals of increasing workforce capacity on early childhood mental health and the development of medical home initiatives. Finally, LAUNCH will aim to incorporate lessons learned on Sustainability Planning and plans to gather information about barriers encountered by LAUNCH or MYCHILD clinicians providing brief interventions to share with state leaders and insurers to inform state policy.

MYCHILD has identified several priorities for FY12. The management team will explore ways to maximize ECMH related reimbursement by Medicaid and private insurance as well as ways to bill care coordination as a reimbursable service. MYCHILD will also increase its collaboration with the Centers for Medicaid and Medicare Services (CMS) and other federal agencies to help ensure Medicaid and private insurers pay for effective mental health services. In FY 12, MYCHILD will consult with System of Care colleagues in Worcester to work towards maximum reimbursement for ECMH clinicians in order to demonstrate the feasibility of including ECMH in the pediatric medical home. At the state level, MYCHILD staff will participate in policy discussions on the pediatric medical home model and the importance of incorporating mental health in overall health as well as the importance of care coordination in a service system for children with special health care needs.

In FY 12, through the addition of the Cultural and Linguistic Competency Coordinator, MYCHILD will continue to increase the cultural competence of site services and engage a diverse group of children and

families. MYCHILD also plans to partner with MassHealth and the Department of Mental health to develop methods to assure optimal prescribing practices for pyschopharmaceuticals by site clinicians. At the state level, MYCHILD will work to grow the Young Children's Council and its link to the Governor's Child and Youth Readiness Cabinet and develop the partnership into a consortium for early childhood mental health in order to connect separate, but relevant, service systems vital to families, including housing, food security and violence prevention.

In FY12, MYCHILD is also in the process of launching a new pilot site at Dorchester House, a community health center in Boston. The site has begun the process of hiring Family Partners and Early Childhood Mental Health Clinicians.

MYCHILD plans to develop enhanced training on diagnosis of young children in conjunction with training on the CANS B-4. Clinicians from both grants will also spend time in neighborhood early education and care programs and family shelters where they will consult with staff and parents, identify at risk children, and deliver services. MYCHILD teams participate on the Individual Care Plan (ICP) teams that will be facilitated by Medicaid Community Services Agencies (CSA), which are responsible for providing intensive care coordination in the MA Children's Behavioral Health Initiative (CBHI).

CSEFEL: In the next year, Pyramid Model training will be expanded to include a broader audience including EEC Coordinated Family and Community Engagement sites, family support and home visiting programs with the CSEFEL Family Modules. The state team will implement a higher education institute to embed they Pyramid Model into early childhood pre-service training.

Site selection for the 4 MIECHV implementation sites has been made, with selection criteria based on need and assets scores, proposal quality, geographic spread, and cultural/linguistic diversity.

In FY12, as part of MIECHV, DPH will begin to set up a central intake and universal one-time home visit and assessment program (FIRSTLink) for all families giving birth in 17 high need Massachusetts communities. One purpose is to identify families with unmet needs and link them with either home visiting or other needed social services in their respective communities.

In FY12, MA New Parents Initiative (MNPI) activities will include: 1) continuing to train providers on the how to use emotion-based messages and the new parent bags. This training will be extended to all MIECHV Programs in five high need communities (Holyoke, Lynn, Fall River, Chelsea and Lynn); 2) include MNPI bags as part of the FIRSTLink visit and continue to disseminate remaining new parent bags to identified EIP programs and community health centers; and 3) reproduce MNPI bags as needed to meet the demands of FIRSTLink, EIPP and community health center requests.

Priority Need #3: Coordinate preventive oral health measures and promote universal access to affordable dental care.

See also accomplishments and activities related to this priority described under National Performance Measure #09 and State Performance Measure #04.

Additional Past Accomplishments (FY10):
Massachusetts had 140 communities providing the health and economic benefits of fluoridation to more than 3.9 million residents (59.1%). The Office of Oral Health monitored fluoridation in these communities and provides technical assistance to local boards of health and offers educational presentations to residents on the benefits of community water fluoridation.

Additional Current Activities (FY11):

In FY 10, the OOH provided one-time fluoridation equipment upgrade grants to 6 communities totaling more than $80K. These grants were funded through a competitive 3-year HRSA BHPr grant and will be offered again in FY 11.

Priority Need #4: Enhance screening for and prevention of violence and bullying.

See also accomplishments and activities related to this priority described under National Performance Measure #16 and State Performance Measures #05 and 09.

Additional Past Accomplishments (FY10):
In FY10, the School Health Institute with the SHU oriented 186 new school nurses; the orientation included a segment on mental health and the school nurse's role. In addition, it offered a day program on mental health issues for 60 school nurses. The summer institute, attended by 300 school nurses, had presentations on (a) what you need to know about bullying, (b) anxiety, and (c) children's behavioral health issues.

In FY10, the Child and Youth Violence Prevention (CYVP) Unit, within the Division of Violence and Injury Prevention (DVIP), continued to its efforts to address youth violence prevention and child maltreatment. Funding for the 28 community-based youth violence prevention programs across the Commonwealth was reduced in the state budget. However, those programs continued to provide a broad range of youth development-centered youth violence prevention initiatives. Rather than focus solely on addressing problems and weaknesses, this program continued to embrace an asset-based approach, viewing youth as agents of change. This program also recognized the need for increased multi-disciplinary collaboration across organizations and agencies serving youth. The YVPP hosted a full day provider meeting that included a significant focus both on collaboration and on bullying prevention. Providers responded very positively recognizing that bullying is often present not just among young people, but with adults targeting youth as well. They were eager to learn skills to address this issue.

FY10 also saw the creation of a new funding stream known as the Youth at Risk Grant program (YARG). DVIP determined that this funding as well should be used to support a youth development approach to youth violence prevention, although one with less of a *primary* prevention focus. 35 community based programs were funded through a competitive procurement.

The (CYVP)Unit continued to implement Safe Spaces for GLBT Youth, a program designed to address suicide of and violence against GLBT youth. Safe Spaces continued funding 7 providers across the state 6 of which provide services to GLBT youth and one of which provides substantial technical assistance and professional development opportunities for programs around the state. These programs also focus on youth development and resiliency, recognizing that the increased risk of suicide faced by GLBT youth is directly correlated to their increased risk of bullying and violent victimization. The program began to incorporate the findings of the CA-based Family Acceptance Project regarding improved outcomes for GLBT youth based on increased acceptance by their families. This work is ongoing.

DVIP staff continued to attend meetings of the Domestic Violence Council of the Conference of Boston Teaching Hospitals. This collaborative group includes representatives from many health-care based domestic and sexual violence programs as well as some community providers and seeks to improve the response to domestic and sexual violence in health care settings through improved screening and response to victims.

The Sexual Assault Prevention and Survivor Services (SAPSS) Unit, within the DVIP, addresses sexual violence through a number of programs and initiatives. SAPSS supports (funds and provides capacity building and technical assistance to) 17 comprehensive community based sexual assault prevention and survivor services programs (rape crisis centers) to provide quality, multicultural services for adolescent and adult survivors and loved ones of survivors of all ages. These services include 24 hour hotline, individual and

group counseling and accompaniment through medical, police and court processes. Additionally, centers provide community prevention education and organizing as well as professional training and consultation.

SAPSS also funds statewide sexual assault capacity-building and technical assistance activities through Jane Doe, Inc., the Massachusetts Coalition against Sexual Assault and Domestic Violence. These activities include technical assistance to the rape crisis centers, as well as innovative education and training opportunities. In FY10, among other key offerings, Jane Doe continued its support of an ongoing strategy to enhance community engagement and *primary* prevention of sexual violence. For example, in February of 2010, Jane Doe Inc. implemented its third "White Ribbon Day" with thousands of males across the state signing a pledge to never commit, condone or stay silent about violence against women, sexual assault and domestic violence. It was an extraordinarily successful event, supported by the DPH Commissioner and other key state officials.

Key to its violence prevention efforts, the Director of SAPSS continued as a member of the steering committee of The Massachusetts Sexual Abuse Prevention Partnership which serves as a statewide voice and educational resource on child sexual abuse prevention (see www.enoughabuse.org).

SAPSS also oversees the statewide Sexual Assault Nurse Examiner (SANE) Program, which includes both Adolescent/Adult and Pediatric components and is operated through a partnership with the Massachusetts Office for Victim Assistance. Adolescent/Adult SANE provides 24 hour/7 day a week forensic evidence collection and coordinated medical care to victims of sexual assault age twelve and over in designated hospital emergency departments across the Commonwealth, and provides training to non-designated sites as well. The Pediatric Program provides specialized exams for children in 7 Child Advocacy Centers and 1 designated emergency department and also provides training to hospitals across the Commonwealth in pediatric sexual assault evidence collection. SANEs work in coordination with hospital staff, rape crisis center advocates, police and other criminal justice personnel to assure compassionate and coordinated patient care and to provide testimony should the case go to trial. Per protocol, patients seen through the SANE program are offered pregnancy, STD and HIV prophylaxis as indicated. Although this program is a response to sexual violence, it is critical as a piece of preventing negative long term physical and emotional outcomes.

DVIP continued to administer Batterer Intervention Program Services (BIPS), including certification of batterer intervention programs according to the Massachusetts Guidelines and Standards for the Certification of Batterer Intervention Programs, contracting with programs to provide services for indigent batterers and monitoring programs to assure quality and compliance with standards.

DVIP continued to implement the Refugee and Immigrant Safety and Empowerment (RISE) Program which supports community-based programs across the state to provide survivor services and community prevention and outreach in 19 immigrant/refugee communities, in 15 languages. In addition, RISE supports legal representation of immigrant/refugee victims of domestic and sexual violence.

The Massachusetts Rural Domestic and Sexual Violence Project continued its work with women, children and youth in isolated and remote rural communities throughout Massachusetts. This project utilizes a specially targeted model of providing services to victims and children exposed to domestic, dating and sexual violence in rural areas. The project also provides professional and community violence prevention education in order to engage rural communities in responding effectively to these issues.

In FY10, the DPH Family Planning program and the Division of Violence and Injury Prevention continued to explore sources of funding to support ongoing work addressing domestic and sexual violence by planning providers. This work seeks to build the knowledge-base and capacity within family planning services statewide to screen and respond to family violence.

The teen pregnancy prevention program continued to provide training to its providers. In partnership with the DVIP program the OAHYD offered training in trauma informed care to support teen pregnancy prevention providers in increasing their capacity to work with youth who have experienced physical, sexual and emotional trauma. The OAHYD provided a second level of training to teen pregnancy

prevention providers working with GLBTQ youth that addressed the prevention of health risks and promotion of healthy outcomes of this population.

Throughout FY2010, Early Intervention Partnership Program (EIPP) continued to screen all pregnant and postpartum women for violence in the home as part of their home-visiting protocol. Through the Massachusetts New Parents Initiative, BFHN utilized a digital story (created in FY09) of a woman who experienced domestic violence and the impact this had on her life. Staff also utilized the previously produced discussion guide for providers in discussing family violence with women.

Additional Current Activities (FY11):

In FY11, the CYVP Unit continued its efforts focusing on youth violence prevention and child maltreatment. FY11 again saw funding cuts to the already significantly reduced providers funded under the Youth Violence Prevention Program. Nonetheless, these programs continued their work and the Director of the CYVP Unit provided significant technical assistance and support. In particular, the program focused on a rash of suicides and homicides of young people in the western Massachusetts city of Springfield. Working with the Division's Suicide Prevention Program, the Unit brought in trainings and capacity-building programs to support the development of a trauma response model into the city. This work is continuing.

The Director of the CYVP Unit also worked extensively with the Executive Office of Public Safety, the Executive Office of Health and Human Services, and staff from the Governor's Office in the design of a Governor's Initiative to address youth violence. The Governor has named youth violence prevention as one of his three priorities for this term and he is focusing his commitment on a proposed initiative that will focus on the youth/young men at greatest risk of homicide (as victim or perpetrator).

The CYVP Unit continues to implement Safe Spaces for GLBTQ Youth. However, ongoing funding reductions have significantly reduced program capacity. None-the-less, in FY11 the Unit Director continued to develop an effective and productive relationship with the Massachusetts Commission on GLBT Youth and this relationship will serve both young people and the program well. In particular, the Commission developed a number of events which increased the knowledge base of key stakeholders in the Commonwealth about the risks faced by GLBT young people and the proven strategies for reducing risk and supporting resiliency.

Unfortunately, dedicated state funds to address Shaken Baby Syndrome were eliminated in the state budget. However, DPH was able to continue monitoring hospitals to assure their education of new parents regarding infant crying and infant soothing techniques as well as the dangers of shaking an infant through routine site visits conducted by Health Care Quality. If HCQ finds that hospitals are not complying with the statute, they are referred to staff in DVIP for training and materials.

DVIP staff continue to working internally with other DPH programs to develop program-specific screening tools and policies that incorporate trauma informed care. Strategies are being developed for ongoing work with family planning providers as well as substance abuse treatment providers (see below). DVIP staff have also worked to increase collaboration with hospital based programs implementing a youth violence prevention model known as VIAP (Violence Intervention and Advocacy Program). DVIP staff attended a national conference and have met with program staff to learn more about this model and how it may be effectively used within Massachusetts.

Staff have also explored opportunities for incorporating violence prevention into the Department's work to address obesity and chronic disease, particularly through efforts focusing on health and safe environments.

The Sexual Assault Prevention and Survivor Services (SAPSS) Program, collaborating with the statewide coalition against sexual assault and domestic violence, continues to provide an internal and external voice on issues of sexual assault victim service and prevention needs and to oversee the programmatic work of the rape crisis centers and the SANE Program.

Both the rape crisis centers and the SANE Program faced significant budget cuts in FY11. These were somewhat offset by a state supplemental appropriation in January, which allowed the SANE Program (which had been predicting the closure of services in May) to continue to operate throughout the fiscal year. However, both programs have lost capacity and DPH is working closely with partners to assure that these programs are sufficiently funded to meet the needs of victims and to continue to work to prevent sexual violence in the Commonwealth.

Despite these funding pressures, the SANE program completed work on new statewide protocols for the care of adolescent and adult patients of sexual assault. These protocols are recognized as the gold standard of care for victims.

SAPSS continued its work on the Teen Dating Violence Prevention Plan convening a still very active TDV planning "team" consisting of DVIP's Injury Prevention (coordinator of MassPINN), Violence Prevention (epidemiologist, youth violence prevention director, and Rape Prevention Education (RPE) Program director and Youth Development (Director of Adolescent health and teen pregnancy prevention programs) staff; our state's Start Strong TDV Initiative in Boston (Boston Public Health Commission) and DELTA PREP Program (Jane Doe state sexual and domestic violence coalition), and local Sexual Assault, Domestic Violence, and youth development programs specifically including GLBT youth focused programs (BAGLY, BARCC, Casa Myrna, etc).

This "team" has been tapped to support a great deal of additional related work:

- Began work in coordination with the Department of Elementary and Secondary Education to propose revisions and additions to the that Dept's statewide guidelines to school districts on teen dating violence taking into account current context of Title IX and related civil rights, new TDV, bullying, wellness and restraining order legislation and regulations in MA
- Worked with MA PREP (federal teen pregnancy prevention initiative) to assess and adapt evidence based teen pregnancy prevention curricula to be used in MA PREP programs to ensure adequate content re: trauma-informed, GLBT-inclusive, healthy relationship skills/content (including TDV and sexual violence prevention)
- Work with cross-DPH healthy relationships/sexuality workgroup to develop staff trainings for Department- supported youth programs training to increase their capacity to integrating GLBT-inclusive, trauma-informed, healthy relationships/sexuality promotion in their work with youth
- Provide additional capacity building of youth-serving program staff on integrating healthy relationship/sexuality and violence and substance abuse prevention through training of program staff ("BeSafe" curriculum for youth workers and youth-serving agency directors)

The Director of SAPSS continued to co-chair the Massachusetts Coalition for Sex Offender Management, along with the President of the Massachusetts Association for the Treatment of Sexual Abusers. A federal DOJ/CSOM-funded sex offender management collaborative has now merged with MCSOM, increasing its reach.

DVIP continued ongoing work with underserved immigrant and refugee communities through the RISE Programs across the state as well as work with women, children and youth in isolated and remote rural communities through the Massachusetts Rural Domestic and Sexual Violence Project. In FY11, DPH completed a competitive application for the Rural Project and is awaiting notice of continuation of this long-time work past September 2011.

DVIP continues to administer Batterer Intervention Program Services (BIPS). Despite significant funding cuts, the director of the program continued to focus on service improvement. Staff have convened experts and stakeholders to develop a model of high risk assessment for programs. The Director has also convened a multi-stakeholder group to initiate revisions to the legislatively required *Massachusetts Guidelines and Standards for the Certification of Batterer Intervention Programs.* Staff are also continuing work with the Bureau of Substance Abuse Services to improve coordination among these two provider groups and to understand how each could improve and reinforce the work of the other. DPH is seeking funding from SAMHSA to support this ongoing (groundbreaking) work.

Along with other state agency partners and the state domestic violence and sexual assault coalition, DVIP continues in a leadership role in the Governor's Council Addressing Sexual and Domestic Violence. Staff have chaired several working groups, including Service Accessibility and Prevention, and are involved in a number of ad hoc initiatives including the state's response to several high profile domestic violence homicides and a multi-agency effort to address military sexual trauma.

In FY 2011, the Massachusetts WIC Nutrition Program continues to screens for intimate partner violence among all women served at 35 WIC programs statewide. In addition, a general overview of domestic violence is incorporated into all WIC new staff training. Local WIC programs continue to develop ongoing relationships with their local community-based domestic violence program and a standard on the Management Evaluation (ME) will monitor annual domestic violence trainings at the local WIC Programs.

In a new collaboration, DVIP and BFHN Perinatal Health Staff collaborated on the development of proposed outcome measures related to screening for domestic violence in the Early Childhood Home Visitation Program.

Additional Activities Planned for the Coming Year (FY12):
Building on work begun in 11, the Child and Youth Violence Prevention Unit will continue work to implement the Governor's Youth Violence Prevention Initiative collaborating with staff from the Executive Offices of Public Safety and Health and Human Services. This initiative will target high risk young men (age 15-24) who have a history of violent victimization or have criminal records for violence. This work is expected to assist in reducing the extreme Black/White disparity in homicide and assault-related injury for that exists. Staff will continue to work with the Department of Elementary and Secondary Education to assist schools in implementing the state's bullying prevention regulations. Staff will also continue collaborating with the Suicide Prevention Program to assure that the connections between suicide and bullying are more comprehensively addressed.

Batterer Intervention Program Services will continue its revision of the *Massachusetts Guidelines and Standards for the Certification of Batterer Intervention Program Services* as well as it collaboration with the Bureau of Substance Abuse Services in hopes of developing a "white paper" about the connections between BI and substance abuse treatment and how these programs should be working collaboratively in order to improve services to clients and ensure increases safety for victims of domestic violence. Staff expect to finalize the high risk assessment tool.

Additionally, staff will continue work begun in FY09 with partners in the Division of Chronic Disease and Health Promotion to include recognition of the experience of violence as a risk factor for chronic disease and other negative health outcomes. Staff is working to integrate violence prevention efforts into the state's application to the CDC's Community Transformation Grant.

The Massachusetts WIC Nutrition Program will continue to train newly hired staff on the dynamics of domestic violence and domestic violence screening. The Management Evaluation (ME) standard will continue to review the documentation of the domestic violence training conducted at the local program by a community-based domestic violence program. In addition, the new WIC MIS includes questions prompting WIC staff to screen for domestic violence.

All incoming staff for MIECHV, EIPP and FOR Families will receive orientation and training as needed in screening for domestic violence.

Additionally, DVIP staff will continue collaborative work begun in FY11 to support the integration of domestic violence screening in the Early Childhood Home Visitation Program.

The Family Planning Program, through its comprehensive program assessments, will continue to evaluate violence screening policies and procedures at funded agencies and identify needs for ongoing training and support.

Priority Need #5: Support reproductive and sexual health by improving access to education and services.

See also accomplishments and activities related to this priority described under National Performance Measures #08, 17, and 18 and State Performance Measures #01, 04, and 05.

Additional Current Activities (FY11):
Family planning services funding decreased slightly (1%); this represents a total family planning program funding reduction of 21% since FY08.

This year, a new emergency contraceptive product came on the market, making the revision of all emergency contraception (EC) materials a top priority. Several materials related to improving access to EC have been created, revised or are in the process of being focus tested and finalized this year. The EC patient fact sheet that Massachusetts is required to produce in accordance with the Emergency Contraception Law to improve access to EC following sexual assault was updated, translated into Spanish, Portuguese and Haitian-Creole, focus tested by medical advocates for rape survivors, and is now available in the Massachusetts Sexual Assault Evidence Collection Kit. The companion EC provider fact sheet specific to sexual assault is currently being finalized and will be focused tested shortly by SANE nurses (Sexual Assault Nurse Examiners). A pocket guide to EC for all audiences is currently being focus tested by family planning providers. The annual reporting form for pharmacy access to EC has also been revised. Additional plans include updating the model standing order for EC pharmacy access and 'Where can I get Plan B®?' flow chart to include to include new products.

The "Maria Talks" hotline and website completed a transition to a content management system, which will allow for faster editing and more control of content by AIDS Action staff. As a part of the transition, the entire site was overhauled to increase site usability and readability. HIV content was also added to the site. AIDS Action has utilized a MA Promise Fellow to manage a Youth Action Board for Maria Talks, providing valuable youth feedback on the site and using peer leaders to help promote the site through word-of-mouth, Facebook, and other social media. Some minimal changes to the website are being proposed as a result of some concerns about content that arose in FY11.

The Family Planning Program completed two comprehensive site reviews of MDPH-funded family planning programs in FY11.

Family Planning continues to facilitate the Abortion Access Group. In FY11 a group of advocates from the MA abortion funds published a report, "Experiences of Women Seeking State-Subsidized Insurance for Abortion Care in MA," highlighting some of the challenges their clients have had accessing Medicaid. This report was presented at an Abortion Access Group meeting and will be further disseminated to Medicaid staff in FY12. The report can be viewed online at http://emafund.org/MA-abortion-funds-release-report-on-masshealth. Also in FY11, NARAL Pro-Choice MA published an updated "Guide to Abortion Care in MA," a comprehensive directory of abortion providers in the state. The guide can be viewed online at http://www.prochoicemass.org/research/abctoc.shtml. Finally, the Sharing Arrangement continues to provide abortion case management and care coordination, and is in the process of updating data systems to improve reporting on client information.

Support from the National Campaign to Prevent Teen and Unplanned Pregnancy for the REaDY (Reproductive Empowerment and Decision Making for Young Adults) initiative ended in FY11. Early in FY11, Ibis Reproductive Health issued research reports on a desk review of young adult plans and focus groups with young adults. The statewide, multi-agency taskforce chaired by the Family Planning Program and coordinated by NARAL Pro-Choice MA continued to meet past the end of funding from the National Campaign. In December 2010, the "Little Black Book for Sexual Health" launched at

http://littleblackbookhealth.org. This website is designed to help young people in MA understand and choose an insurance plan with a particular focus on reproductive health care needs. The site has been translated into Spanish (http://littleblackbookhealth.org/es), undergone a formal literacy and usability assessment, and has been promoted widely to youth audiences.

Priority Need # 6: **Improve the health and well being of women in their childbearing years.**

Many of the accomplishments and activities for this priority are described under the following National or State Performance Measures: NPMs #8, 11, 15, 17, and 18 and SPMs #01, 02, 04, 06, and 10.

Additional Past Accomplishments (FY10):

The state's Working on Wellness Tool Kit and workplace wellness initiative provided resources, training and technical assistance on developing and implementing policy, systems and environmental change strategies to support breastfeeding at the worksite.

Since FY2008, a DPH Gestational Diabetes Workgroup has been addressing the issue of GDM. The GDM working group has identified several areas of focus including disparities in GDM among racial and ethnic minorities; lack of standardized state guidelines for screening, diagnosis and treatment; opportunities for improved surveillance; and incomplete understanding of relationship of risk factors and development of GDM.

The MDPH Diabetes Prevention and Control Program (DPCP) convened a work group which included NPAO and WIC staff, along with representatives from public and private health plans and clinical experts from across the state, to develop GDM Guidelines. Topic areas included screening and diagnosis, complications, management strategies, medical nutrition therapy, physical activity, medications, antepartum surveillance, intrapartum management/delivery, postpartum follow-up for mother and offspring.

The DPCP did not release the GDM Guidelines (GL) as planned due to changes in diagnostic criteria anticipated after release of the *Hyperglycemia and Adverse Pregnancy Outcomes* (HAPO) study and areas of controversy within the GDM GL Work Group. The DPCP has been working with expert consultants in obstetrics, endocrinology and nutrition to revise and update the draft of MA GDM Guidelines. The updated draft includes emerging evidence for screening and diagnosis, management, antenatal surveillance/delivery, and postpartum follow-up for mother and child. The GDM GL draft will be resubmitted to the Work Group for review and feedback and we anticipate convening the Work Group for final consensus on the GL in late August/early September 2011. Following release of the MA GDM Guidelines, MDPH will develop tools to enhance integration of the recommendations into routine clinical care and promote the MA GDM GL through educational venues. Staff from the division of Perinatal, Early Childhood and Children with Special Health Care Needs and WIC will continue to serve on the GDM GL Work Group and contribute to the development of the GL and associated material.

Using the PELL data system, ODT continued to examine maternal and infant outcomes (increased morbidities) among women with GDM in collaboration with the BCHAP. The results from this work also informed new efforts of the DPH Medical Director to address Massachusetts rising GDM rate. The prevalence increased 64% between 1998 and 2008). DPH also partnered with CDC and BU to develop a proposal to look at GDM recurrence among women giving birth in Massachusetts using PELL.

WIC: Assessed clients for GDM or history and provided individualized plan, coordinated with medical and other providers, provided nutritional counseling for postpartum women to prevent future diabetes risk. Nutrition staff focused women on maintaining a healthy weight through pregnancy and achieving a

healthy postpartum weight, emphasizing the lifelong benefits for women and their families. WIC programs operating in services areas with Community Health Centers that employ a Registered Dietitian and provide services to the MCH population were required to have nutrition coordination agreements with these health centers detailing how participants receive comprehensive coordinated health and nutrition services, including high risk follow-up for GDM. WIC worked to ensure the collection of GDM diagnoses for all postpartum women using the new Eos data system.

DPECSHN: EIPP home visitors provided education and monitoring for women with GDM and pre-existing diabetes during pregnancy and postpartum. Health education highlighted the issue of attaining and maintaining a healthy weight to benefit both postpartum women and infants. EIPP also successfully encouraged all women in their program to breastfeed, emphasizing the health benefits not only for infants, but for postpartum weight loss for women, especially those who experienced GDM.

Women who access family planning services are provided preconception and interconception counseling as well as pap and other screenings, and are linked with primary care services, health insurance, and other services to promote their overall health and well-being in their childbearing years.

In FY10, the Family Planning Program and the Office of HIV/AIDS submitted and received a CDC perinatal HIV grant to develop a specific training that would support CDC guidelines regarding the integration of routine HIV testing into family planning program practices. This training will support MDPH-funded family planning providers to implement routine HIV testing as a component of an integrated preconception care program. This initiative will respond to the *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings* as well as the *Recommendations to Improve Preconception Health and Health Care*, while also reaching many populations of women who may be at higher risk for HIV who have long been the target populations of family planning providers: low-income women, non-white women, uninsured women, and women not formally connected to the health care system.

In FY10, in collaboration with 18 statewide perinatal advocacy and support agencies, including breastfeeding support organizations, DPH convened the 21stth annual “Partners in Perinatal Health Conference,” which provided up-to-date training and multidisciplinary networking opportunities to over 500 perinatal care providers across the Commonwealth. The conference is an opportunity to highlight the need for improved preconceptional and interconceptional care. All conference participants received educational materials about the World Health Organization Breastfeeding Code. Special workshops focused on racial disparities in health outcomes; nutrition in pregnancy and postpartum period; environmental toxins; labor support; anthropology of birth; care and feeding of the newborn; grief and loss in pregnancy; adolescent health; cesarean births; traumatic births; and breast feeding late pre-term infants. The keynote and plenary sessions were conducted by national experts on the cultural, physical, political and emotional impact of birth and parenting on families and communities. Dr. James Collins, Dr. Michael Lu, Penny Simkin, Laura Vanderberg, PhD, and Margaret Howard, PhD. This is a collaboration with the state Healthy Mothers, Health Babies Coalition.

As presented in detail in relation to other measures and priorities cross-referenced above, additional BFHN efforts focused on healthy weight, breastfeeding, smoking cessation, violence, injury, mental health, and multiple aspects of women’s health through the lifespan.

A Helping Hand: Mother to Mother (AHH) project was discontinued as of September 30, 2010. Until then, the project continued enhanced identification of and services for substance exposed newborns (SENs), their mothers and families in 3 sites. Approximately 100 clients were served through this project. 75% of the clients were referred by the birth hospital. The project’s three peer Family Support Specialists—themselves women in recovery--mentored, supported, and advocated for the mothers to obtain substance abuse services and stay in recovery, and for their SENs to obtain appropriate developmental services. As of September 2010, 122 mothers had been offered services through this program. 96 women received mandated referrals because the infant was identified as a substance exposed newborn (SEN) by the hospital. The mean age of the infants referred into the program was 4.4

days with a range of aged 3.7 to aged 5.1 days. The majority (78%) were in custody of the mother, the remaining were in the custody of the state welfare agency.

EIPP Nurses, Social Workers, and Community Health Workers developed formal linkages with medical providers and birthing hospitals, ensuring continuity of care. EIPP provided comprehensive health assessments to approximately 800 pregnant and postpartum women on intake, with linkages to primary and specialty health care providers and referrals to community based services.

The financial collaboration between EIPP and 2 of 4 Massachusetts Managed Care Organizations (MCOs) remains strong with the MCO's reimbursing EIPP providers directly for home visiting and group services to improve the health and well-being of pregnant and post partum women and their infants.

BSAS continued to develop and strengthen treatment services for women and children. The Bureau funds substance abuse treatment and support for homeless families and those at risk for losing custody of their children in eight family treatment programs, three family transitional programs, and a number of permanent housing scattered sites for families. The Bureau continues to work with families in shelters by providing intensive case management as well as information and education to both the staff and guests at the shelters.

BSAS helped to develop Women's Treatment Standards guidance for all the states, to be adopted by the National Association of State Alcohol and Drug Abuse Directors (NASADAD). The Bureau is reviewing and revising its treatment standards for pregnant/postpartum women, families, and women in treatment and will draw from the NASADAD document for guidance.

BSAS began implement modality management meetings for all women's residential treatment programs in FY10. BSAS is also coordinating an initiative to develop protocols for the acute detox and treatment for pregnant women with substance use disorders in Massachusetts treatment facilities.

Additional Current Activities (FY11):

In collaboration with 18 statewide perinatal advocacy and support agencies, including breastfeeding support organizations, DPH convened the 22nd annual "Partners in Perinatal Health Conference," which provided up-to-date training and multidisciplinary networking opportunities to over 500 perinatal care providers across the Commonwealth. The conference is an opportunity to highlight the need for improved preconceptional and interconceptional care. All conference participants received educational materials about the World Health Organization Breastfeeding Code. Special workshops focused on inequities and birth outcomes; gestational malnutrition; environmental toxins; labor support; international midwifery practice in war torn nations; eco-friendly birth; wellness of the pelvis floor; adolescent health; intimate partner violence and pregnancy; prenatal yoga; postpartum depression day hospital model of care; minimizing traumatic birth imprints following neonatal resuscitation; and breastfeeding multiples. The keynote and plenary sessions were conducted by national experts on the cultural, physical, political and emotional impact of birth and parenting on families and communities. Speakers included Sandra Steingraber PhD, Gary Cohen, Barbara Graves CNM, Deborah Issokson, PsyD, Naomi Bar-Yam, PhD, and Jeanne Watson Driscoll, PhD among many others. This is a collaboration with the state Healthy Mothers Healthy Babies Coalition.

Now in its fourth year of operation, BSAS and the Department of Children and Families (DCF) continue to collaborate on a federally funded Administration for Children and Families grant to work with Western MA families, in their homes, who are at risk of losing custody of their children. The Family Recovery Project is a partnership between the BSAS, DCF, Institute for Health and Recovery (IHR), and over twenty social service agencies in Western MA to coordinate services for families with a history of substance abuse and mental health issues.

BSAS continued to fund a pregnant women's services coordinator at IHR to ensure that pregnant women seeking services have access in a timely manner. BSAS has also convened a group of experts in providing detox to pregnant women to review the current protocols and to work on reducing barriers to treatment. There are plans to present these protocols at a Public Policy Forum in the fall that will be a

collaboration among Brandeis University, the BFHN and BSAS. Several initiatives related to substance exposed newborns and substance use in pregnancy and families will be presented.

Now in its third year, BFHN continues to implement FRESH Start, funded by the Children's Bureau (ACF) through the Abandoned Infants Assistance (AIA) to develop a program in Hampden County (serving Holyoke and Springfield families) to serve pregnant and postpartum families with a substance use disorder (SUD). The program, called FRESH Start works on several levels. At the family level, family support specialists (FSS) who are mothers in recovery themselves, connect to families to provide peer support and encourage engagement with the health care system. Family Recovery Specialists (FRPs), clinicians who specialize in addictions, provide therapeutic interventions. At the community level, the program provides training for community partners, and at the systems level, the program works to enhance service coordination across a wide range of providers to create a seamless system of care for families with SUD. The program is now fully staffed, working at capacity and has gained acceptance within the community. One particular focus has been providing funds for a small community grants (up to $5,000). One recipient was a group of mothers in recovery who started a project which they called "Moms in the Hood" to provide support groups and group activities for mothers in recovery and their children.

In FY 11, through the CDC perinatal HIV grant received in FY10, a training vendor was selected to develop a specific training on routine HIV testing in MDPH family planning clinics, a provider advisory group was formed, and a pilot training is scheduled for early FY 12 (July 2011).

In FY10, the PELL team submitted two R01 grant proposals through the MOSART Collaborative (DPH/BU/SART/CDC) to enhance understanding of the longitudinal sequelae of ART on women as well as infants. MOSART received funding from NIH for both proposal during FY11 to study (1) whether ART is related, independent of subfertility status, to short- and long-term adverse health effects during fetal development, the perinatal period, and early childhood to age three, through a clinical and epidemiological population-based approach, and (2) whether ART is related, independent of subfertility status, to short- and long-term adverse health effects for women through a clinical and epidemiological population-based approach. These two studies will be using novel matched data and providing the foundation for a longitudinal study of women treated with ART in the State of Massachusetts. IRB approvals have been obtained from both MDPH and the Boston University School of Public Health and key staff including a MOSART programmer and MOSART project manager have been hired.

Two proposals to link three existing independent state data systems to create a new population-based database which can be used to identify unmet need for drug and alcohol treatment in women, describe the interaction of substance abuse/alcohol treatment, hospital utilization and health outcomes submitted to NIDA and NIAAA in FY09, was funded in FY11. The three data sources to be linked are: (1) the population-based MA Pregnancy to Early Life Longitudinal (PELL) data system which includes vital records (births, fetal deaths and deaths) linked to hospital discharge records; (2) The Massachusetts Division of Healthcare Finance and Policy Case Mix data base (hospital discharge, observational stay, and emergency department visit records); and (3) the MA Bureau of Substance Abuse Services (BSAS) Substance Abuse Management Information System (SAMIS) that contains treatment records for over 25,000 annual admissions of women of reproductive age to publicly funded substance abuse treatment facilities. This novel database will be used to identify substance-use disorders, as well as the prevalence of, and disparities in, met- and unmet treatment need, among Massachusetts women of childbearing age (15-49), and the subset of women delivering a live or stillborn infant during the study period. Associations between substance use disorders and select health outcomes among women and their children will also be examined.

Funding to conduct PRAMS call-back survey was secured by DPCP and a contract with Pegus Research Inc. was established. PRAMS call-back survey data collection began in the fall of 2010 and is ongoing. The call-back survey is currently in the field.

WIC developed and implemented social marketing campaign to promote breastfeeding services and encourage longer breastfeeding durations. WIC local agencies set goals to track performance of women's weight gain in pregnancy.

Additional Activities Planned for the Coming Year (FY12):
Collaboration with statewide perinatal advocacy and support agencies continues and the 23nd Annual Partners in Perinatal Health Conference is scheduled for May 2012.

In FY12, MDPH plans to collaborate with CDC and CityMatCH to plan and implement an HIV/FIMR project to identify and address missed opportunities for perinatal HIV prevention in Massachusetts. The process would include data gathering, case review of births to women living with HIV/AIDS, developing recommendations based on information from reviews, plans to implement the recommendations.

The MDPH Family Planning Program will work with the Office of HIV/AIDS and the selected training vendor to provide and evaluate the pilot HIV routine testing training (July, 2011) and final trainings (fall 2011) for all family planning providers.

FRESH Start (FS) will continue the project for FY 12. No changes are anticipated. FS will also start to seek funding for sustaining/expanding the program.

In September, BFHN, using funds from AHH and FRESH Start and in collaboration with Brandeis University and BSAS, will hold policy forum entitled, *Substance Exposed Newborns: Addressing Social Costs Across the Lifespan.* The purpose of the Policy Forum is convene stakeholders from several fields, including consumers, health care providers, policy makers, advocates, insurers, government, academics, and the general public to identify service gaps and the impact on health care systems of substance exposed newborns. At this forum the latest data and research on this topic will be presented. A variety of expert speakers will present on the issue of substance exposed newborns, consider pressing issues, and discuss possible policy solutions. Input from attendees will inform the discussion as well. As a result of the forum, stakeholders will develop a better understanding of the problem and also identify future steps to improve the lifespan of substance exposed newborns in the state.

The WIC Program will develop and distribute a GDM self-study module for nutrition staff. WIC will also focus on coordinating with medical providers to assess healthy weight gain in pregnancy using the newly revised IOM guidelines.

In FY12, the BFHN will focus on expanding evidence-based home visiting services to families in high need communities as part of the federal Maternal, Infant and Early Childhood Home Visiting (MIECHV) program funded through the ACA. The goals of the program are to: 1) Strengthen and improve programs and activities carried out under the State Title V agency (in Massachusetts, this is the BFHN); 2) Improve coordination of services for pregnant and parenting families in high need communities; 3) Provide comprehensive evidence-based home-visiting programs to pregnant and parenting families to improve outcomes for families in high need communities; and 4) Build and enhance a statewide system of care for families and young children. MIECHV will fund five pilot programs in Holyoke, Chelsea, Lynn, Fall River and Southbridge using the Healthy Families, Parents as Teachers, Early Head Start and Healthy Steps.

PRAMS and DPCP will develop a strategy to analyze and disseminate findings from PRAMS call-back survey to appropriate stakeholders.

MOSART child's linkage activities will continue. A 24 AB application will be submitted for the women's health study. The PELL linkage to BSAS will be completed and analyses will begin.

Priority Need #7: Reduce unintentional injury and promote healthy behavior choices for adolescents.

See also accomplishments and activities related to this priority described under National Performance Measure #10 and State Performance Measures # 05, 08, 09, and 10.

Additional Past Accomplishments (FY10):
The Injury Prevention and Control Program continues to promote injury prevention across the lifespan. Adolescents are at significant risk for unintentional injury, much of which can be prevented through risk reduction strategies, including healthy behavior choices. A great deal of this work is captured in SPM#8. Additional activities impacting this priority need included:

Work continued on establishing a statewide Trauma Registry and EMS database in collaboration with the MDPH Office of Emergency Medical Services with funding from the National Highway Safety Traffic Administration.

Surveillance of unintentional injuries utilizing statewide death and hospital discharge data and dissemination of findings to DPH program staff as well as state and local audiences.

Collaboration with the Massachusetts Prevent Injuries Now Network (MassPINN) and other advocates on the passage of a sports-related head injury concussion law that will require the Division of Violence and Injury Prevention to develop regulations and a training program for all public schools and all schools that are members of the Massachusetts Interscholastic Athletic Association that promotes a “when in doubt, sit them out” philosophy concussion and head injuries occurring in practice or play. Additionally, through collaboration with MIAA and others hundreds of “Heads Up” concussion kits were distributed to school athletic programs across the state.

Coordinated by the Children’s Safety Network, IPCP staff and colleagues from the New England Injury Prevention Network developed a “community of practice” to focus on rural injuries. The group is focused largely on ATV issues and this was instrumental in helping the state to pass legislation banning ATV use for children under 14 and requiring safety education for those 15 and 16.

IPCP staff began a new project with the Consumer Product Safety Commission to conduct recall checks. Two IPCP staff were trained to conduct recall checks to assure that products subject to recall are no longer being sold and that appropriate notices are posted in stores. Ten recall checks were conducted in FY10.

During the school year 2009-2010, school nurses were able to assess and/or treat 92.5% of the on-campus injuries and illnesses brought to their attention and return students to class. These on-site services provide major benefits. Students who are treated on-site can be returned to the classroom with minimal interruption of their educational activities; working parents do not have to take time off from work to provide care; and the high cost of treatment in a doctor’s office is avoided. Of students who had to be dismissed, 93.2% were due to illness and only 6.8% to injuries. The returned-to-class rate for student health encounters reported by 50 partner districts (which have a higher student-to-nurse ratio than funded districts) was 89.0%, which was lower than that reported by funded districts, and the dismissal rate was 8.6%, higher than that reported by funded districts.

For injuries of a more serious nature, school nurses filed injury reports according to state and local policy. For the 2009-2010 school year, districts reported a total of 23,381 student injury reports and 2,194 staff injury reports, including reports of 18,214 unintentional injuries, 2,223 intentional injuries, and 2,944 injuries of unknown intent.

Of the student injury reports filed by school nurses, 9.5% involved the intentional infliction of injury. These included injuries resulting from assaults (e.g. physical fighting) and those that were self-inflicted (e.g. intentional drug overdose, suicide attempts). In addition, school nurses in the 78 districts referred students to urgent health care services a total of 7,086 times. In 1,805 (25.5%) of these events, 911 or ambulance services were called, and in the remaining 5,281 (74.5%) events, parents or others were called to transport the student to health services.

Additional Current Activities (FY11):
The Injury Prevention and Control Program (IPCP) continued its core activities including: quarterly injury prevention mailings to relevant MCH programs; surveillance of unintentional injuries utilizing statewide death and hospital discharge data and dissemination of findings to DPH program staff as well as state and local audiences; coordination of a statewide network of injury prevention stakeholders and advocates, MassPINN.

In FY11, the IPCP applied for a competitive Core Violence and Injury Prevention grant from the CDC. As part of the application process, the program updated the current Massachusetts State Plan for Injury Prevention and began preliminary work on a *strategic* plan that will be the basis of the program's work going forward. Working with MassPINN, the plan is expected to prioritize the following four injury areas: Transportation Safety, Poisonings, Childhood Injury Prevention and Falls.

Division of Violence and Injury Prevention staff continued significant activities in the area of sports-related concussion prevention and response. In January, the Department's Medical Director and the DVIP Director presented draft regulations for the implementation of the new law. Staff from the Essential School Health and School Based Health Center Programs were instrumental in developing these regulations. Two public hearings were held in March and testimony from 175 individuals and organizations was received. Final regulations were presented and passed by the Public Health Council in early June. Head Up concussion kits continued to be distributed to school athletic programs across the state. Additionally, DVIP was contacted by the CDC with an interest in evaluating the new law and initial collaboration has begun.

A health communications intern conducted a study of bike helmet use including interviews of bike users. The results of this study can inform future activities and public information efforts in this area.

The reduction of unintentional injuries among infants and younger children was also the focus of several activities:

Home Safety Check List:
Home Safety Check Lists for children age 0-5 continue to be widely requested and disseminated. The IPCP worked with a health literacy/social marketing organization and the resulting booklets are attractive and accessible. The checklist has also been translated into Spanish and copies are available and being distributed as well. The checklist has been translated into Portuguese, which may be downloaded from the DPH website. This checklist is a valuable tool for MCH home visiting and other programs.

Safe Sleep:
A Safe Sleep Working Group comprised of staff from the Injury Prevention and Control Program, Bureau of Family Health and Nutrition, the Department of Children and Families, and the MDPH Medical Director finalized a policy statement and recommendations regarding safe sleep. It incorporates the most recent research and a risk reduction approach to the issue of co-sleeping. This policy can form the basis for future development of public education materials.

Massachusetts New Parents Initiative:
Campaign materials developed through the MNPI project focus on supporting parents of newborns. The campaign logo of "Care, Share, Bond" encourages parents to care for themselves to foster their capacity to care for their infants, share their experiences with others, including family, friends and healthcare providers to decrease social isolation and encourage new parents to from others, and bond with their infant to promote infant mental wellness and development. The effectiveness of these materials was

evaluated by Boston University, and found to improve communication between providers and new parents.

Additional Activities Planned for the Coming Year (FY12):
As part of its recently awarded Core Violence and Injury Prevention Program grant, the Injury Prevention and Control Program (IPCP) will complete its new *strategic* plan begun in FY11. The plan will include considerable focus on the MCH population. The IPCP will work with expert consultants to learn from stakeholders (including MCH providers), engage the data, and consider relevant and possible strategic activities to reduce the burden of injury in Massachusetts. The plan is expected to be finalized by January 2012. This work may well support the program in addressing drowning and biking issues impacting young people.

IPCP will work with other programs within the Division as well as the Bureau and Department to address cross-cutting risk and protective factors. For example, as the Department seeks to develop its application for the Community Transformation Grants, a focus on youth development has been identified as complimentary to the strategic goals of healthy living and safe and healthy environments. IPCP staff are involved in the development of this application and will continue to work with those within DPH and within partner communities should this application be funded.

The Injury Prevention and Control Program will continue core integration activities: quarterly mailings to relevant MCH programs, including WIC, Community Health Centers, EI, EIPP, School Health and others; surveillance activities; and dissemination of product safety information, among others.

BFHN will continue to disseminate MNPI campaign materials, and provide orientation to these materials for providers at community health centers, and within home-visiting programs statewide.

MIECVH will include a focus on injury prevention and home safety for pregnant and parenting families, including first time teen parents, in five high need communities. The program will also be collecting outcome data on emergency visits for parents, infant and children related to safety as well as document a process measure of the number of safety topics discussed with parents.

Priority Need #10: Improve data availability, access and analytic capacity.

Additional accomplishments and activities related to this Priority Need are included in discussions and notes related to data for all National and State Performance Measures, Health Systems Capacity Indicators (particularly HSCI #09), and Health Status Indicators.

Additional Past Accomplishments (FY10):
The Office of Data Translation (ODT) within the Bureau of Family Health and Nutrition (BFHN) provided data for needs assessment, performance management, and decision support throughout the Bureau. Working closely with Bureau leaders, ODT staff conducted data analysis, evaluation, needs assessment, and surveillance activities to inform federal grant applications, program performance monitoring, community mobilization and broadened public awareness. ODT analyses have informed strategic initiatives to address emerging trends (e.g., gestational diabetes is increasing in MA).

The EHS Virtual Gateway provides a common interface for public-facing programs in health and human services. WIC successfully implemented Eos, the web-based WIC system that will interface with the state Virtual Gateway initiative. Data migration plans for WIC data from the legacy system were completed. WIC began the pilot testing of the Eos management information system in three local WIC agencies.

The Pregnancy to Early Life Longitudinal (PELL) data system is an ongoing cooperative project with DPH, BU School of Public Health, and the CDC to create a database that follows mothers and infants

longitudinally beginning at birth through early childhood. Files already linked or planned for inclusion included birth certificate, hospital discharge data, Early Intervention, birth defects, newborn screening programs, substance abuse management information, assisted reproductive technology clinical outcomes reporting system and WIC. In FY10, core linkages were updated to birth data for 2008. Many PELL accomplishments are listed under other priorities and measures. Below are additional accomplishments:

- The FY10 application to HRSA/MCHB for the Massachusetts State Systems Development Initiative (SSDI) grant continued to focus on PELL linkages to improve HCSI #9(A) component concerning the WIC-birth linkage and included calculation of IPI for SPM#3. In FY10, PELL programmers identified unique mothers within the WIC data system, linking their records together.
- In 2007, the PELL team was awarded a three year contract from CDC's National Center for Birth Defects and Developmental Disabilities (NCBDDD) to conduct longitudinal studies of Down Syndrome (DS) using data PELL data. The MDPH co-PI, Dr. Hafsatou Diop and her colleagues Drs. Susan Manning and Marlene Anderka provided senior scientific and administrative leadership along with the BUSPH colleagues co-PI. The project aims were to describe the prevalence, co-morbidities, and survival among children born with DS in Massachusetts during 1999-2005 and to assess service utilization and associated costs among these children. Analyses have been completed for a paper on hospital-related service use and cost among children with Down syndrome, and IRB approvals to link to the National Death Index and add 2006 and 2007 birth cohorts to do an analysis of the survival to ages 1 and 3 years have been obtained. The MDPH Child Hearing Data System was linked to the PELL data system to enable the examination of hearing loss among children with Down syndrome.
- A proposal to link three existing independent state data systems to create a new population-based database which can be used to describe the interaction of substance abuse treatment, hospital utilization and health outcomes was submitted to NIDA and NIAAA in FY09, but was not funded. The proposal was resubmitted in FY10. The three data sources to be linked are: (1) the population-based MA Pregnancy to Early Life Longitudinal (PELL) data system which includes vital records (births, fetal deaths and deaths) linked to hospital discharge records; (2) The Massachusetts Division of Healthcare Finance and Policy Case Mix data base (hospital discharge, observational stay, and emergency department visit records); and (3) the MA Bureau of Substance Abuse Services (BSAS) Substance Abuse Management Information System (SAMIS) that contains treatment records for over 25,000 annual admissions of women of reproductive age to publicly funded substance abuse treatment facilities. This novel database will be used to identify substance-use disorders, as well as the prevalence of, and disparities in, met- and unmet treatment need, among Massachusetts women of childbearing age (15-49), and the subset of women delivering a live or stillborn infant during the study period. Associations between substance use disorders and select health outcomes among women and their children will also be examined.
- An additional collaborative PELL project to improve surveillance and better understand prevalence, costs, risk factors and causes of stillbirths has completed the analytic phase and papers stemming from these analyses are under preparation. The study investigated racial/ethnic disparities in the prevalence of stillbirths in MA. The PELL Stillbirths Study has involved four active work groups focused on 1) fetal death data quality; 2) incidence, trends, and socio-demographics; 3) birth defects among fetal deaths; and 4) causes of death. An abstract on incidence, trends and socio-demographics was presented in an oral presentation at the 2010 MCH Epidemiology Conference.
- The Cesarean Section Analysis Working Group (CSWAG) which was formed in FY08 to better understand factors contributing to the increasing cesarean delivery rate in MA continued to examine maternal and pregnancy risk factors associated with the increasing rate of cesarean deliveries, using linked data from the PELL data system. The group examined hospital–level characteristics associated with higher rates of cesarean deliveries, particularly in women with no documented medical or pregnancy risk factors and among all women, after adjusting for maternal characteristics and pregnancy risk factors. An abstract describing the results was presented to the 2010 MCH EPI Conference. A paper stemming from these analyses was submitted to JAMS and is currently under review. In addition, a perinatal summit was convened on May 16, 2011, in collaboration with March of Dimes, AGOG and MDPH to highlight the results of the CSAWG to get feedback from obstetrical providers across the state. The primary goals of the summit were to get

hospitals to work with state on some quality measures to improve maternal and infant health and allow providers to have an intra professional discussion.

- Knowledge about the risk for long-term developmental morbidity among infants born late preterm (34–36 weeks gestation) is limited. PELL data were used to examine the association between gestational age and the risk of enrollment in EI services, comparing infants born late preterm to infants born at term (37–41 weeks gestation). Infants born late preterm had a higher risk of EI services enrollment (23.5% versus 12.6%) and showed a dose response effect: risk ranged from 34.9% at 34 weeks gestation to 11.1% at 41 weeks gestation. Adjusted analysis showed that late preterm birth was associated with EI services enrollment. Relative risk decreases with each increase in gestational age. The relative risk was 2.17, 1.70, 1.44 at 34, 35, 36 weeks of gestation respectively. This study also importantly continues to inform the Massachusetts EI program in its efforts to anticipate developmental service delivery to infants born late preterm.
- Prenatal drug exposure to non-medical use of controlled substances (drug exposure) can have direct and indirect negative effects on children's development, and federal law now requires that they be referred to Part C Early Intervention Services (EI). Population-based data on the number of prenatally drug-exposed infants is limited, and there are no studies examining the extent to which they are referred to, enrolled in, and served by EI. The Drug-Exposed Infant Study, lead by Taletha Derrington, used PELL birth certificate and hospital data to develop the Drug-Exposed Infant Identification Algorithm, which identified 7,348 children born between 1998 and 2005 as drug exposed. PELL's linkages to EI data indicated that approximately 60% of these infants were referred to EI. Racial/ethnic and other sociodemographic differences were observed in prevalence and in EI referral. A presentation describing the initial results was given by Ms. Derrington at the 16th Annual Maternal and Child Epidemiology Conference in December 2010, and a short manuscript was published in the March 2011 edition of *The Zero to Three Journal*.
- The revised electronic reporting for congenital anomalies for children 0-3 years old has been successfully implemented in 52 (96%) of the 54 Massachusetts hospitals that are required to report, with the caveat that the program continues to work with some hospitals on the timeliness of their submissions. The program also continues to work with two hospitals, Martha's Vineyard Hospital and Nantucket Hospital, on electronic submission. Although not submitting electronic reports, these two hospitals have been submitting paper reports. Because of high volumes of information received and many false positives, the expanded reporting to outpatient settings has been revised to focus on select ICD9 codes in tertiary hospitals only. In January 2011, prenatal reporting was implemented in the 10 tertiary hospitals, and one large ultrasound practice. In an effort to facilitate the least burdensome reporting methods, the BDMP accepts both electronic and faxed data submissions. To date, 7 out of the 11 prenatal reporters have submitted data.
- A manuscript entitled "Timing of hospital visits for assault during the pregnancy-associated period" is currently in Press for Fall Public Health reports.

PRAMS received the final 2009 weighted dataset form CDC, and achieved the desired 68% response rate. Staff analyzed 2009 MA PRAMS data for MCH Block Grant measures and provided relevant prevalence estimates, including smoking during the third trimester and first-trimester entry into prenatal care. PRAMS continues to be a reliable data source for third-trimester smoking in Massachusetts. The Massachusetts birth certificate has begun collecting smoking during pregnancy for all three trimesters in February 2011. Several topic-specific fact sheets based on 2007-2008 MA PRAMS data including prenatal care entry by the first trimester and unintended pregnancies were disseminated.

The Perinatal Periods of Risk (PPOR) analyses were not updated due to the unavailability of the 2009 linked infant death certificates and fetal death reports. However, previously available 2004-2008 data were used to inform the implementation of the Review of Infant Mortality (RIM) project led by the MDPH Medical Director, Dr. Lauren Smith. The overall excess feto-infant mortality for MA from 2004-2008 was 0.7/1,000 live births and fetal deaths, which was lower than the 2001-2007 rate of 1.1. The excess rate for black non-Hispanics was 2.6/1,000 during 2004-2008, which was lower than the 2001-2007 figure of 4.6 per 1,000 live births and fetal deaths. For white non-Hispanics, the excess feto-infant mortality rate was 0.5 compared to 0.7/1,000 live births and fetal deaths during 2001-2007. The disparity gap between black and white has decreased from previous analyses. In 2004-2008, the excess feto-infant mortality rate among black mothers was 5 times higher than that of white mothers (compared to 6 times in 2001-2007). In Springfield the overall excess feto-

infant mortality dropped from 1.3/1,000 live births and fetal deaths in 2001-2007 to 1.1 in 2004-2008. The decrease was substantially different among white mothers. For whites the decrease went from 1.9 in 2001-2007 to 0.5 in 2004-2008. Among black mothers the excess feto-infant mortality rate decreased from 6.9 in 2001-2007 to 6.2 in 2004-2008. During 2004-2008, the excess feto-infant mortality in Springfield was mainly due to maternal health/prematurity factors and maternal care among black mothers.

The MDPH Family Planning Program completed and released a report entitled "*A Profile of Family Planning among MA Adults, 2006-2008*, in collaboration with the Health Survey unit, in September 2010.

Additional Current Activities (FY11):
IT Application Support maintains the current system and implements improvements as needed. Improvements continue to address business processes, data quality improvements, and application usability and reporting for UNHSP program staff, birth hospitals and Audiologic Diagnostic Centers (ADCs).

Deployment is ongoing at the Registry of Vital Records and Statistics with new EBC system. In collaboration with Vital Records, the new EBC system enables hospitals to update hearing screening results for newborns. This enables real-time screening updates and timely follow-up.

Activities for EI deployment to the Commonwealth Virtual Gateway Portal were delayed due to budget cuts at EOHHS. Development of an enterprise HL7 translator is in process to meet HIPAA transaction requirements. The existing EI client/server system hardware and software was upgraded 2 years ago to increase capacity and performance of the production environment.

The Department continues to work with clinicians, hospitals and professional organizations and the re-established Advisory Committee to implement changes allowed by the congenital anomalies regulations (105 CMR 302), which will enhance our ability to monitor patterns and trends of congenital anomalies in Massachusetts, link families with services and assess service needs. The plan for implementing the new reporting includes written and/or verbal communications with current reporters, new reporters and professional organizations. We are also working with prenatal diagnostic centers to initiate reporting of prenatal diagnosed conditions.

Eos has rolled out to all 35 local WIC agencies. Historical WIC data were migrated successfully from the legacy system into Eos. Several phases of WIC data report design, production and dissemination have begun. In FY11, programmers began creating identifiers of family units, linking mothers to children within WIC. However, these activities were delayed due to the loss of the PELL senior programmer, Manjusha Gokhale. Dr. Xiaohui Cui, the PELL analyst, is currently getting acquainted with both Eos and the linkage algorithm and will continue the WIC-birth linkage and desired analyses.

The 2007-2009 MA PRAMS data findings were presented to the PRAMS Advisory meeting on May 19, 2011. Suggestions for the 2009 MA PRAMS Report have been solicited. Several additional fact sheets are under development including a gestational diabetes and influenza vaccination during pregnancy fact sheets.

Additional analyses were completed using the linked PRAMS and PELL data and were submitted to the Seventeenth Annual Maternal and Child Health Epidemiology Conference being held in New Orleans, Louisiana, Dec. 14-16, 2011. This linkage project will continue to increase the breadth and utility of information available to inform MCH programs and policies in MA.

In preparation for the annual release of Massachusetts birth data, which has been delayed for the 2009 birth data, the MCH Epidemiologist along with ODT epidemiologists and the current CDC CSTE fellow are working to produce (1) a fact sheets about teen pregnancy in Massachusetts communities with the highest teen pregnancy rates and in communities with science-based programs and (2) a fact sheets and trends concerning infant mortality in communities with the highest infant mortality rates. These fact sheets are distributed through DPH regional managers to their local contacts. Communities use the fact sheets to generate media attention and inform local response.

PELL projects progressed substantially:

- MDPH continues to work on the Massachusetts Outcomes Study of Assisted Reproductive Technology (MOSART) project. The purpose of this project is to improve scientific and clinical knowledge about the association between assisted reproductive technologies and pregnancy outcomes, infant health, and maternal health, with the goal of improving clinical practice, identifying possible epidemiological risks, and assisting with the development of appropriate and effective programs and policies. The MOSART collaborative submitted a research proposal (RO1) during FY10, which was funded during FY11. The purpose of this research proposal is to study whether ART is related, independent of sub-fertility status, to short- and long-term adverse health effects during fetal development, the perinatal period, and early childhood to age three, through a clinical and epidemiological population-based approach. This is the first study of its kind in the US using these novel linked data, and will provide the foundation cohort for a longitudinal study of children born from ART treatments in the Commonwealth of Massachusetts. IRB approvals have been obtained from both MDPH and the Boston University School of Public Health and key staff including a MOSART programmer and MOSART project manager have been hired.
- The MOSART collaborative received funding from NIH, which was funded at 17% below the requested funding level. The purpose of this MOSART research proposal is to study whether ART is related, independent of sub-fertility status, to short- and long-term adverse health effects for women through a clinical and epidemiological population-based approach. This builds on an earlier project examining ART and child health outcomes and will be the first study of its kind in the US using these novel matched data to study women's health outcomes, providing the foundation cohort for a longitudinal study of women treated with ART in the State of Massachusetts.
- The proposal to identify substance-use disorders, as well as the prevalence of, and disparities in, met- and unmet treatment need, among Massachusetts women of childbearing age (15-49), and the subset of women delivering a live or stillborn infant received funding from both NIDA and NIAAA during FY11. Staff have been hired and linkage activities have begun.
- The Down syndrome project is nearing the completion of a manuscript on live birth prevalence, and health and socio-demographic characteristics at birth.
- PELL core linkage was updated with 2008 mortality data from mothers and children. However, the EI/PELL linkage was not updated to include the 2007 and the 2008 births due to the loss of both the PELL senior programmer and the PELL EI epidemiologist. Linkage of births from 1998 through 2006 and EI program data from 1998 through December 2008 was completed during FY10. Birth defects data were updated to include 2006 and 2007 data. Currently the birth defects data are linked from 1998 through 2007. MDPH geocoded the birth and death data from 1998 through 2008, and these new variables were added to PELL. WIC migrated its data system into Eos. PELL programmers as designated WIC consultants and receive funding from WIC and have easy access to the WIC data.
- As part of continuous quality improvement efforts, PELL continued to review and revise the core linkage algorithm, improving linkage rates for birth certificates to hospital discharge birth records from 98% to over 99%, with 96% of the records linking on the first, most stringent linkage step. Linkage of fetal death records to hospital discharge delivery records improved from 77% to 97%.

In early 2008, DPH submitted a proposal to MA Department of Elementary and Secondary Education (ESE; formerly the Dept of Education or DOE) in an attempt to reach an agreement to share student data from their Student Information Management System in order to evaluate the importance of EI services for children with autism spectrum disorders (ASD), with the goal of improving developmental outcomes and educational achievement for these children. Revisions to the Family Educational Rights and Privacy Act regulations in December 2009 have delayed progress on this project. The proposal has been approved by MDPH legal staff, but still remains under review by legal staff at DESE.

The PELL/EI linkage with births from 1998 through 2006 and EI program data from 1998 through December 2008 which was completed during FY09, continues to be used to inform program management and evaluation by identifying overall trends in EI referral, evaluation and enrollment. In addition, this linkage is being used to determine prevalence, disparities, and EI service utilization for special populations including children with autism spectrum disorders and children born late-preterm. The information garnered by these analyses will be disseminated to EI program staff and other DPH staff and

stakeholders in order to improve administration of the EI program and inform future program and policy decisions.

In addition to PELL presentations and publications reported elsewhere in this application for performance measures and other priority needs, a manuscript entitled “Early Diagnoses of Autism Spectrum Disorders in Massachusetts Birth Cohorts, 2001-2005” was submitted to Pediatrics and released online ahead of print on May 16, 2011.

The Division of Research and Epidemiology in collaboration with the Tobacco Control Program, also submitted an oral presentation, which was accepted to the 1st Western Regional MCH Epidemiology Conference in June 2011: Place matters: Differential town rates of smoking during pregnancy among Medicaid recipients in Massachusetts.

BFHN staff working on the Maternal, Infant and Early Childhood Home Visiting Program (MIECHV) collaborated closely with federal partners to identify benchmarks and constructs to measure the impact of evidence-based home visiting on pregnant and parenting families in high need communities.

Additional Activities Planned for the Coming Year (FY12):
WIC data reports will continue to be developed and refined. Enhancements to the Eos system will be made to further increase the system’s functionality and to meet changes to federal WIC requirements.

PELL linkages will be updated and existing projects taken to next steps. Calendar year 2009 births and related data will be linked in PELL. Once the 2009 data are linked, there will be approximately 960,000 live birth and 5,000 fetal death records from 1998 through 2009, and 250,000 sequential deliveries in the PELL data system. Linkage of PRAMS and PELL has been completed with the inclusion of 2008 Births; analysis will continue. WIC linkages will resume with Dr. Xiaohui Cui, the new PELL Epidemiologist. We will update child linkages to 2008 and 2009 births and finalize maternal linkage for 2004, 2005, 2006, 2007, 2008, and 2009 births and fetal deaths; and validate and extend WIC-Births linkage by creating WIC family groups in the PELL system. If funding permits, the Downs Syndrome project activities will continue. As for the CDC Stillbirth project, funding has been discontinued. However, the project team is still planning on writing at least one manuscript.
Ongoing analyses of prenatal drug exposure to non-medical use of controlled substances (drug exposure) will examine evaluation, eligibility, enrollment, service receipt, and retention in EI, as well as develop multivariable and multilevel models to examine the contributions of individual child-, provider-, and program-level factors to EI service access and engagement.

The members of the MOSART collaborative will continue to meet monthly and will begin analyses as soon as the linkage to PELL data for the child’s study is completed. Linkage activities for the women’s health study will start as soon as NIH funds are made available to the MOSART team and staff hired. The ODT Director, Dr. Hafsatou Diop is a co-PI on both the child and women’s health grants.

The DPH Medical Director will continue to lead review of the annual birth data report to examine areas of concern, significant changes and disparities. She will involve internal and external experts to identify these areas, undertake additional review and research, and develop responses.

Using data from PELL, PRAMS, PELL/PRAMS linkage, PELL/EI linkage, National Survey for Children, Pregnancy Associated-Mortality databases, seven papers have been submitted for presentation at the MCH Epidemiology Conference in December 2011: 1) a study of association of pre-pregnancy body mass index and physical activity on cesarean deliveries, hospitalization lengths and costs; 2) an examination of weight and mental health status in Massachusetts, 3) an examination of smoking before, during, and after pregnancy among women with disabilities, 4) an examination of audiologic services for children with Down Syndrome in Massachusetts, 5) a study of drug-exposed infant identification algorithm and application to Early Intervention referral, evaluation, and eligibility, 6) an examination of hospital use and cost variation among children with Down syndrome by race/ethnicity in Massachusetts, 1999-2005, and 7) a study of disparities for severe pregnancy-related morbidity: Massachusetts 1998-2007.

The analysis published in collaboration with BRFSS in the report “A Profile of Family Planning among MA Adults, 2006 – 2008,” the MDPH Family Planning Program will be used to refine the family planning questions to be asked on future editions of the BRFSS, to improve the quality of the data. In addition, the program plans to include similar questions on the upcoming BRFSS to continue to monitor trends, have greater statistical power, and a baseline of knowledge that hopefully will increase the program’s ability to use this or similar reports for policy change in the future.

The Department continues to work with clinicians, hospitals and professional organizations and the re-established Advisory Committee to implement changes allowed by the congenital anomalies regulations (105 CMR 302). The next steps are to: 1) follow up with the current prenatal reporters with questions and reporting clarifications; 2) establish prenatal reporting with the remaining four tertiary hospitals; 3) implement reporting in the Level 2 maternity hospitals and select large obstetrical and ultrasound practices; and 4) contact the Level 1 hospitals to establish prenatal reporting in those facilities.

Activities to attempt to link special education data to EI/PELL data will continue.

MIECHV will continue to develop and refine a database and seek TA to finalize a plan to collect and analyze data on evidence-based home visiting programs to assess the impact of home visiting on maternal and infant health, child health and development, school readiness, parenting, child injury and maltreatment, family and community violence, family economic self-sufficiency and coordination and referrals of services for families.